

AMENDMENTS TO THE CLAIMS

Please amend the claims as follows:

LISTING OF CLAIMS:

Claim 1. (Currently amended) A modified ~~An isolated~~ polynucleotide isolated from a microorganism comprising a nucleic acid molecule ~~one or more~~ selected from the group consisting of:

(a) nucleic acid molecules encoding at least the mature form of the polypeptide depicted in SEQ ID NO:3;

(b) nucleic acid molecules comprising the coding sequence as depicted in SEQ ID NO:2;

~~(c) nucleic acid molecules whose nucleotide sequence is degenerate as a result of the genetic code to a nucleotide sequence of (a) or (b);~~

~~(d) nucleic acid molecules encoding a polypeptide derived from the polypeptide encoded by a polynucleotide of (a) to (c) by way of substitution, deletion and/or addition of one or several amino acids of the amino acid sequence of the polypeptide encoded by a nucleotide of (a) to (c);~~

(c) ~~(e)~~ nucleic acid molecules encoding a polypeptide derived from the polypeptide whose sequence has an identity of 56.3 % or more to the amino acid sequence of the polypeptide encoded by a nucleic acid molecule of (a) or (b); and

~~(f) nucleic acid molecules comprising a fragment encoded by a nucleic acid molecule of any one of (a) to (e) and having acetyl-CoA carboxylase activity;~~

(d) ~~(g)~~ nucleic acid molecules comprising a polynucleotide having a sequence of a nucleic acid molecule amplified from a *Phaffia* nucleic acid library using the primers depicted in SEQ ID NO:4, 5, and 6;

~~(h) nucleic acid molecules encoding a polypeptide having acetyl CoA carboxylase activity, wherein said polypeptide is a fragment of a polypeptide encoded by any one of (a) to (g);~~

~~(i) nucleic acid molecules comprising at least 15 nucleotides of a polynucleotide of any one of (a) to (d);~~

~~(j) nucleic acid molecules encoding a polypeptide having acetyl CoA carboxylase activity, wherein said polypeptide is recognized by antibodies that have been raised against a polypeptide encoded by a nucleic acid molecule of any one of (a) to (h);~~

~~(k) nucleic acid molecules obtainable by screening an appropriate library under stringent conditions with a probe having the sequence of the nucleic acid molecule of any one of (a) to (j), and encoding a polypeptide having acetyl CoA carboxylase activity;~~

~~(l) nucleic acid molecules whose complementary strand hybridizes under stringent conditions with a nucleic acid molecule of any one of (a) to (k), and encoding a polypeptide having acetyl CoA carboxylase activity~~

wherein the nucleic acid molecule of any one of (c) to (d) encodes a polypeptide having acetyl-CoA carboxylase activity which is reduced compared to the activity of the wild type polypeptide.

Claim 2 (Cancelled).

3. (Currently amended) The modified ~~isolated~~ polynucleotide of claim 1, wherein said polynucleotide encodes the amino acid sequence of ~~which is identified by~~ SEQ ID NO: 3 or has identity of 56.3 % or more with SEQ ID NO: 3.

4. (Currently amended) The modified ~~isolated~~ polynucleotide of claim 1 wherein said polynucleotide is isolated ~~derived~~ from a strain of *P. rhodozyma* or *Xanthophylomyces dendrorhous*.

5. (Previously presented) A method for making a recombinant vector comprising inserting the polynucleotide of claim 1 into a vector.

6. (Previously presented) A recombinant vector containing the polynucleotide of claim 1.

7. (Previously presented) The vector of claim 6 in which the polynucleotide of claim 1 is operatively linked to expression control sequences allowing expression in prokaryotic or eukaryotic cells.

8. (Currently amended) A method of making a recombinant microorganism ~~organism~~ comprising introducing the vector of claim 6 into a host organism.

9. (Currently amended) The method of claim 8, wherein said host organism is selected from *E. coli*, ~~baculovirus~~, or *S. cerevisiae*.

10. (Currently amended) ~~A~~ The recombinant microorganism ~~organism~~ containing the vector of claim 6.

11. (Currently amended) A process for producing a polypeptide having acetyl-CoA carboxylase activity comprising culturing the recombinant organism of claim

10 and recovering the polypeptide from the culture of said recombinant microorganism organism.

Claims 12-49 (Cancelled).

50. (New) An isolated polynucleotide sequence that comprises the sequence set forth in SEQ ID NO: 2.

51. (New) An isolated polynucleotide sequence that consists of the sequence set forth in SEQ ID NO: 2.

52. (New) An isolated polynucleotide sequence that encodes the polypeptide sequence set forth in SEQ ID NO: 3.

53. (New) An isolated polynucleotide sequence that hybridizes under high stringency conditions to SEQ ID NO: 2 or its complement and encodes a polypeptide that has acetyl-CoA carboxylase activity, wherein the high stringency conditions include hybridizing in 6xSSC, 0.5% SDS, 100 µg/ml denatured salmon sperm DNA, 50% formamide overnight at 42° C and washing once in 2xSSC, 0.5% SDS at room temperature for 15 minutes followed by a second wash in 0.1xSSC, 0.5% SDS at room temperature for 15 minutes.

54. (New) An isolated polynucleotide sequence that encodes a polypeptide sequence that is at least 95% identical to the polypeptide sequence set forth in SEQ ID NO: 3 and has acetyl-CoA carboxylase activity.

55. (New) A recombinant vector comprising a polynucleotide according to any of claims 50, 51, 52, 53, or 54.